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ARMY OFFICER CAREER DEVELOPMENT

Proceedings of Panel
Presented at the Annual Meeting of
The American Personnel and Guidance Association
Chicago, Illinois, April 1976

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CAREER DEVELOPMENT AND SOLDIER PRODUCTIVITY TECHNICAL AREA

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U. S. Army

Research Institute for the Behavioral and Social Sciences

December 1977

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Research Problem Review 77-12

ARMY OFFICER CAREER DEVELOPMENT

Panel Discussion
American Personnel and Guidance Association
1976 Annual Meeting, Chicago, Illinois

Bertha H. Cory, Chairman

Francis F. Medland,
J. M. Hicks, and Anthony E. Castelnovo
Army Research Institute for the Behavioral and Social Sciences
John I. Weldon, Jr., US Army Training & Doctrine Command
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CAREER DEVELOPMENT AND SOLDIER PRODUCTIVY TECHNICAL AREA

December 1977

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FOREWORD

The present Research Problem Review is a transcription of a panel discussion on Army Officer Career Development presented at the annual meeting of the American Personnel and Guidance Association, Chicago, Illinois in April 1976, and led by personnel of the Army Research Institute for the Behavioral and Social Sciences (ARI). The discussion is of interest as a current summary of research in officer career counseling and career development which is one facet of ARI's Career Development and Soldier Productivity Technical Area.

The research on officer careers was accomplished under Army Project 2Q762717A766, in support of the Officer Personnel Management System (OPMS) and in response to requirements from the Deputy Chief of Staff for Personnel.

J. E. UHLANER,
Technical Director

ARMY OFFICER CAREER DEVELOPMENT

Panel, American Personnel and Guidance Association, 1976 Annual Meeting

CONTENTS:

GENERAL INTRODUCTION

Bertha H. Cory, Chairman

I am Bertha Cory from the Army Research Institute for the Behavioral and Social Sciences (ARI) in Alexandria, Virginia. We have with us: Dr. Hicks, who is co-author with Mr. Anthony Castelnovo, who could not be present. Both are at the Army Research Institute. Mr. Frank Medland is also a research psychologist doing research on Army Career Systems at ARI. Dr. Hoffer is participating in ARI contract work that is being done on career strategies at Teachers College, Columbia University and is currently also with Psychological Corporation. Mr. John Weldon is with the Department of the Army at the Training and Doctrine Command at Ft. Monroe, VA. Professor Roger Myers is chairman of the Department of Psychology and head of counseling in Division of Psychology and Education at Teachers College, Columbia University. Dr. Myers has been principal investigator on the ARI contract which began last year and is continuing through this year on long range career strategy and decision making as applied to the Army Officer System. Dr. Laurel Oliver, the recorder for this session, is also a member of the Career Systems research team at ARI. Ms. Sally Van Nostrand, who has volunteered to tape what we are saying, is a computer science specialist on the ARI research team, and is an expert on the software system which has been developed for this project.[1]

For general background, I have prepared for you a short overview of the Army's research program on career systems. The speakers will cover only certain aspects of the total effort.

Thus far ARI career progression research has focused on the officer system. There are aspects of what we are doing that are unusual as contrasted with other computerized career guidance that has been developed. Although we are concerned about providing to the counselee (the Army officer) career information and guidance, we also want our system to be responsive to the needs of Army managers, or assignment officers. In other words, our system must serve both the individual and the mission of the organization. Other computer-based career counseling systems concentrate on the counselee. We hope to create a two-way interface between counselee's needs and management needs for vacancies to be filled and missions to be accomplished. Another unusual aspect of our system is its scope, with a tremendously large population and a very wide geographical distribution. This is indeed a challenging task.

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[1]All presentations prepared from a tape-recorded transcript.

OVERVIEW: ARMY RESEARCH ON CAREER SYSTEMS

Bertha H. Cory
U.S. Army Research Institute for the
Behavioral and Social Sciences
Alexandria, VA

Career development research at the Army Research Institute for the
Behavioral and Social Sciences (ARI) focuses currently on the Army officer
career from point of entry in service to the grade of Colonel. Initial
emphasis concerns (1) the junior officer who wants to "learn the ropes,"
who needs guidance in career planning and decisions, and who needs infor-
mation on the options available in the Army structure and their relative
suitability to his interests, aptitudes, and potential; (2) definition
of the Army's personnel structure--the requirements of the assignments--
in terms that can be translated to capabilities of the officer corps for
use by both the individual officer in stating his preferences and by
career managers in making assignments most compatible with Army needs and
individual development. Briefly stated, the goal of the research is a
career progression system which will achieve the best fit between the Army's
needs and individual career needs.

Complexities of the entire career progression system--with vast
amounts of data involving interactions between personnel resources and
Army requirements--dictate capitalizing on the expanding capabilities
and availabilities of computers, teleprocessing networks, and interactive
terminals. As a first phase a computerized research facility has been
created at ARI. In addition to the essential hardware, a software system
has been designed - an extremely flexible Data Base System, especially
suited for use in an experimental situation where both the data structure
and use will be constantly changing. Experiments are being designed
involving officers in the field who are seeking career counseling and
information, and Army Headquarters personnel managers.

Currently underway is research on definition of assignment requirements.
Extended job taxonomy research has led to the development of a "duty
module" methodology. A "duty module" is a coherent cluster of related
tasks that go together, occupationally and organizationally in meaningful
ways. They can be "plug in" units for many positions. Applications to
the officer requirements structure will define degree of comparability
and transferability of training and experience between pairs of career
specialties.

Research is also underway on improved measures of differential leadership potential, interests, and performance, relating to appropriate selection of a career specialty for the junior officer's initial military development and to a subsequent requirement for selection of a second career specialty.

Also currently programmed are: prototype scripts for guidance on long range career strategies and decision making; design of dialog modules bearing on early career decisions important to junior officers; development of a measure of preference dimensions across career specialties and a similiarity index for matching job activities against the individual's profile of preferences for those categories of activities; assignment algorithms for computerized aid to managers in optimizing man-job matching; design of data banks on characteristics of the officer, requirements of jobs, options for civilian and military education and features of the Army's personnel system. Future research will include concepts and applications of career gaming, and aspects of computerized modeling of career systems flow. The experimental facility will study alternative methodologies in areas of career information, career planning, and personnel management decisions. Evaluations will be made in terms of cost-effectiveness, acceptability, and utility.

JOB TAXONOMY FOR

DIFFERENTIAL CAREER DEVELOPMENT LATTICES

Francis F. Medland
U.S. Army Research Institute
for the Behavioral and Social Sciences

The Army Officer Personnel Management System (OPMS) has a rigorous and well-defined career progression structure. The broad features of this structure include:

a. A single point of entry to an officer career at the second lieutenant level, generally immediately after college, either from the Military Academy or the ROTC program.

b. Primary specialization in one of thirty occupational entry specialties, based on factors of Army needs, college specialization, and individual preference.

c. Development of full career competence in this specialty through a combination of extended formal military education and experience-developing duty assignments through the first eight years of active service.

d. An alternate specialty area to be designated for the individual officer in his eighth year of service, from among the remainder of the thirty entry specialties and fifteen additional "advanced entry" specialties. Designation of the alternate specialty is based on Army needs, civilian education, military education and experience, and personal desires. Competence in this alternate specialty, through formal education and/or on-the-job experience is expected by the end of about the tenth year of service. Thereafter, progress through the remainder of the full Army career (normally completion of thirty years of services and retirement in the grade of Colonel) generally consists of alternating assignments between primary and alternate specialty.

e. A formalized promotion system for individual progression to each higher grade--a mandatory consideration of the individual in competition with his peers on the basis of record comparisons, with forced release from active duty on the basis of non-promotion, and with significant attrition at each promotion point.

Research support for career management and individual officer planning for career progression in the OPMS includes job taxonomy research concerned with development of a methodology for a standardized coherent definition of the separate elements which define the total assignment. Aspects of this research phase include:

a. Job data on officer assignments collected through interviews with job incumbents conducted by trained job analysts.

b. Grouping of related tasks, identified in the job surveys, into coherent functional areas, which define and bound a significant unit of work in the total assignment. These groupings are called "Duty Modules." A "Duty Module" is developed and characterized as follows:

(1) A preliminary judgmental pragmatic grouping of related tasks into a self-contained functional entity within the total assignment.

(2) A non-overlapping task grouping--not dependent on other task groupings within the assignment.

(3) Standardized in content and meaning across assignments so as to be an interchangeable element for a variety of assignment descriptions.

c. Field verification of the judgmentally defined task groups by an independent sample of assignment incumbents, on the adequacy and accuracy of Duty Module definition of the assignment--Figure 1 shows an example of the duty module "Performs general administration" and the field verification rating scheme. For each task, the incumbent rates the type of his participation in the task. For the total duty module--the full grouping of tasks--its relevance to the assignment, that is, the percent of time spent performing the duty module in the assignment, and importance of the module to the assignment--each is evaluated under both combat and garrison conditions.

d. Duty module sets (normally about 3 to 10) which define the assignment must be accurate and sufficient to define the essential, truly significant, continuing work requirements of the assignment.

At the present time about 180 duty modules have been constructed and verified, through job analyses within the Armor, Engineer, Infantry, Quartermaster, and Ordnance career progression channels of the OPMS, and it is projected that the complete assignment structure of OPMS can be defined with a total set of approximately 200 duty modules.

5

DUTY MODULE O-A-2 Performs general administration	(5) Direct	(4) Supervise	(3) Do and supervise	(2) Do	(1) Assist	(0) Not applicable
0014 Prepare administrative SOPs and instruction.						
0015 Monitor security of classified documents.						
0003 Prepare and review administrative correspondence, memoranda, and reports.						
0006 Establish and monitor arrangements for collection and distribution of mail within unit.						
0008 Screen incoming correspondence and distribute for action or information.						
0017 Establish and operate suspense system.						
0018 Authenticate orders and official correspondence.						
0019 Establish and post files of records and regulations.						
0012 Review, interpret and apply directives and information.						
0020 Schedule appointments, conferences, and other such activities.						
0021 Provide for reproduction and duplication services.						
0004 Prepare and review unit journal, historical records and morning report (or change reports for centralized systems).						
0005 Administer unit funds.						
0007 Establish and operate unit message center.						
0013 Prepare daily bulletin or similar publication.						

1. DO MODULE AND TASKS APPLY TO YOUR POSITION	(0) Not applicable	(1) Little applicability	(2) Several of tasks	(3) Majority of tasks	(4) All of tasks		
a. In actual or simulated combat operations and support?							
b. In garrison and other than a?							

2. PERCENT OF TOTAL TIME SPENT ON THIS DUTY MODULE	(0) Not applicable	(1) 1–9%	(2) 10–29%	(3) 30–49%	(4) 50–69%	(5) 70–89%	(6) 90–100%
a. In actual or simulated combat operations and support?							
b. In garrison and other than a?							

3. RELATIVE CRITICALITY OF THIS PART (MODULE) TO ENTIRE JOB	(0) Not applicable	(1) Least critical	(2) Average	(3) Critical	(4) The most critical		
a. In actual or simulated combat operations and support?							
b. In garrison and other than a?							

Figure 1. Example of a duty module

Another aspect of the research is the construction of career progression lattices. These structually relate past training and experience requirements to alternatives for future progression through the duty module definition of the various assignment options.

Figure 2 shows this research phase in schematic form for the 6 officer grades by 45 career specialty matrix.

   a)   The cells represent salient grades and assignments.

   b)   The letters within the cells--examples of duty module definition of the assignment.

   c)   The lines between cells--solid, dotted, and dashed--depict hypothetical career progression paths, for three officers with different primary and alternate specialties.

The development of the assignment requirement/career lattices structure as defined above provides the framework to support other aspects of career progression research to be described in following papers, leading to creation of an integrated system to support:

   a)   Career Managers in optimizing the training and experience and developmental needs of the officer to future assignment options.

   b)   Individual officers in understanding and active participation in planning their own career objectives and progression.
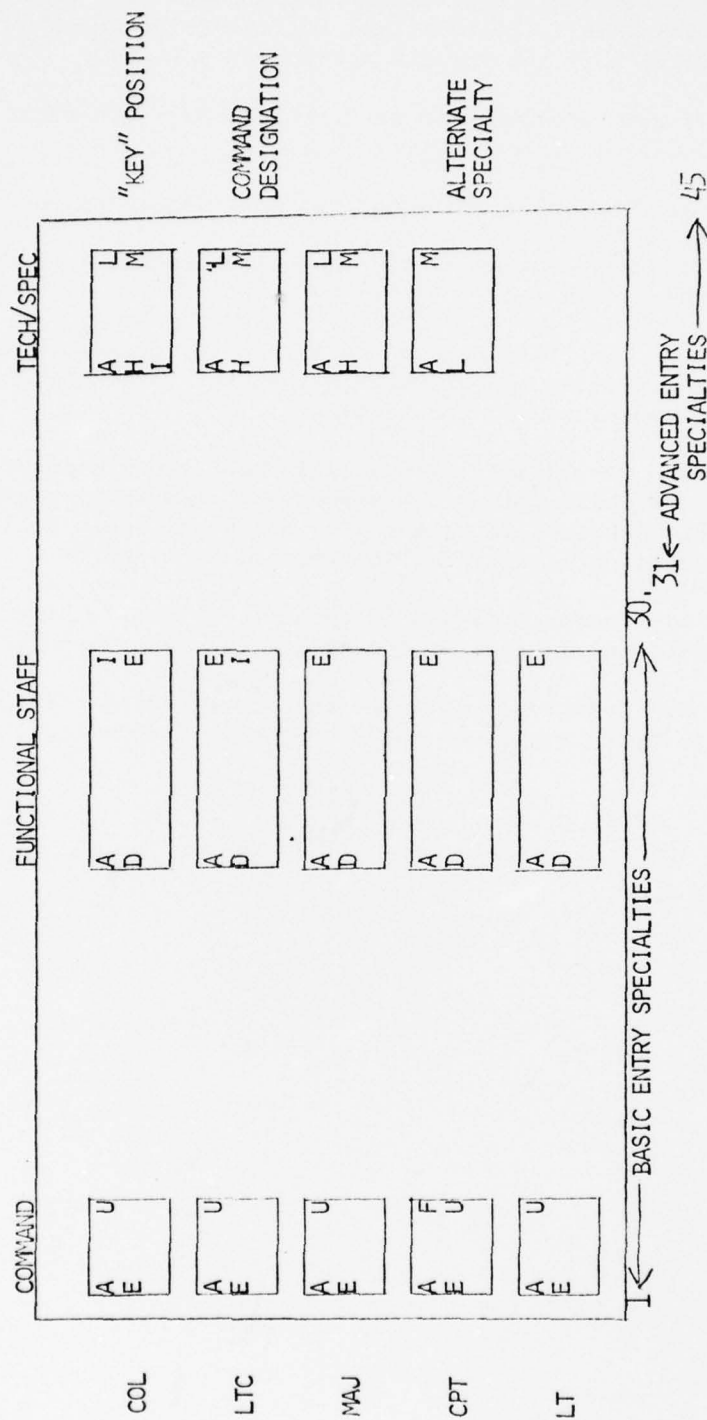
Figure 2. Career progression lattice

Although there are constraints in the requirements of the Army officer system, there is also latitude for career planning, for career decisions, and for expression of preferences. The Army asked ARI to undertake research in this area because they wanted officers - particularly junior officers coming into the Army - to think of the Army as a career, to be aware of its opportunities and to realize that they could participate in planning a career within the constraints of the system. If junior officers are aware of decision points and their career needs, their expressed preferences can have an impact on what happens to them in the Army. Several surveys had revealed that junior officers often were uninformed about the career system; when they were asked to express preferences, it appeared to them that what happened was unrelated to what they said they preferred. A contributing reason was that they often expressed preferences "in a vacuum;" they asked for assignments that were not available or for which they did not have qualifications. We hope our system will provide information exchange between the officer and management so that officers can express feasible preferences which will relate to what actually happens.

CAREER COMMITMENT MODEL

J. M. Hicks and A. E. Castelnovo

U.S. Army Research Institute
for the Behavioral and Social Sciences

The research presented was conducted from December 1973 to November
1975 under a contract with the U.S. Army Research Institute for the
Behavioral and Social Sciences by the American Institutes for Research.
The project was headed by Dr. J. J. Card who prepared the final report
from which the material for this paper was taken. The report contains
a great amount of material and many findings and insights that cannot be
covered here in the short time we have. The mandate of the study was
to develop and test a model of career commitment in the young adult
(primary college) years. The model was to be broad enough to provide
the Army with information it could use in recruiting, selecting, and
retaining qualified officers via its college-campus Reserve Officer
Training Corps (ROTC) program.

A tentative model of ROTC/Army career commitment was developed to
bring together existing knowledge on career commitment, to provide a
theoretical framework for the generation of survey questionnaire items,
and to guide the analysis of data collected as questionnaire responses.

Several sources were used in developing the tentative model: a
literature and data bank review, exploratory interviews with college
students and Army officers, and input from a Project National Advisory
Panel.

One study in particular (Schoenherr and Greeley, "Role Commitment
Processes and the American Catholic Priesthood," American Sociological
Review, 1974, 39, 407-426) proved very useful in structuring the tentative
model. In this study a general model was proposed that explained role
commitment "as a process in which continuing in the role depends on the
net balance of its rewards and costs."

According to Schoenherr and Greeley, the decision to continue in a given role is a function of the following crucial variable clusters, presented in order of their assumed causal sequence (Fig. 1): Societal and regional context, Organization and group context, Background and primary socialization, Personality traits, Secondary socialization conditions, Personal values, Balance of immediate costs and rewards, and Cost of alternatives foregone. A change in any given variable cluster is assumed to affect one or more of the subsequent clusters; prior clusters, however, are not affected.

In developing the tentative model of ROTC/Army career commitment for the present study, the following steps were taken:

1. Factors theoretically and empirically associated with career commitment, especially with ROTC/Army recruitment, selection, and retention, were generated from the literature review, the interviews, and the National Advisory Panel discussions.

2. These factors were grouped conceptually using the Schoenherr and Greeley framework for studying role commitment processes.

The resultant tentative model of ROTC/Army career commitment is given in Figure 2.

Three aspects of the commitment process are included: (a) the series of decisions (represented as diamonds) made by an ROTC student through the college years and the initial period of obligated Army service; (b) the hypothesized universe of factors (represented as boxes) that determine, or correlate with, each decision in the series; (c) the structural relationship among the predictor factors, indicated by the grouping of related variables (into single boxes) and the ordering of the groups into an assumed causal sequence (indicated by the box numbers).

The criterion of commitment to ROTC/Army is conceptualized as a single scale-variable, based on a composite of several indicators:

1. behavioral indices, such as
   - joining ROTC
   - remaining in ROTC
   - joining the Regular Army or Active Duty Reserve

2. attitudinal indices, such as
   - certainty of one's plans regarding joining or continuing in ROTC/Army
   - eagerness with which the fulfillment of one's plans regarding ROTC/Army are anticipated
   - length of intended service
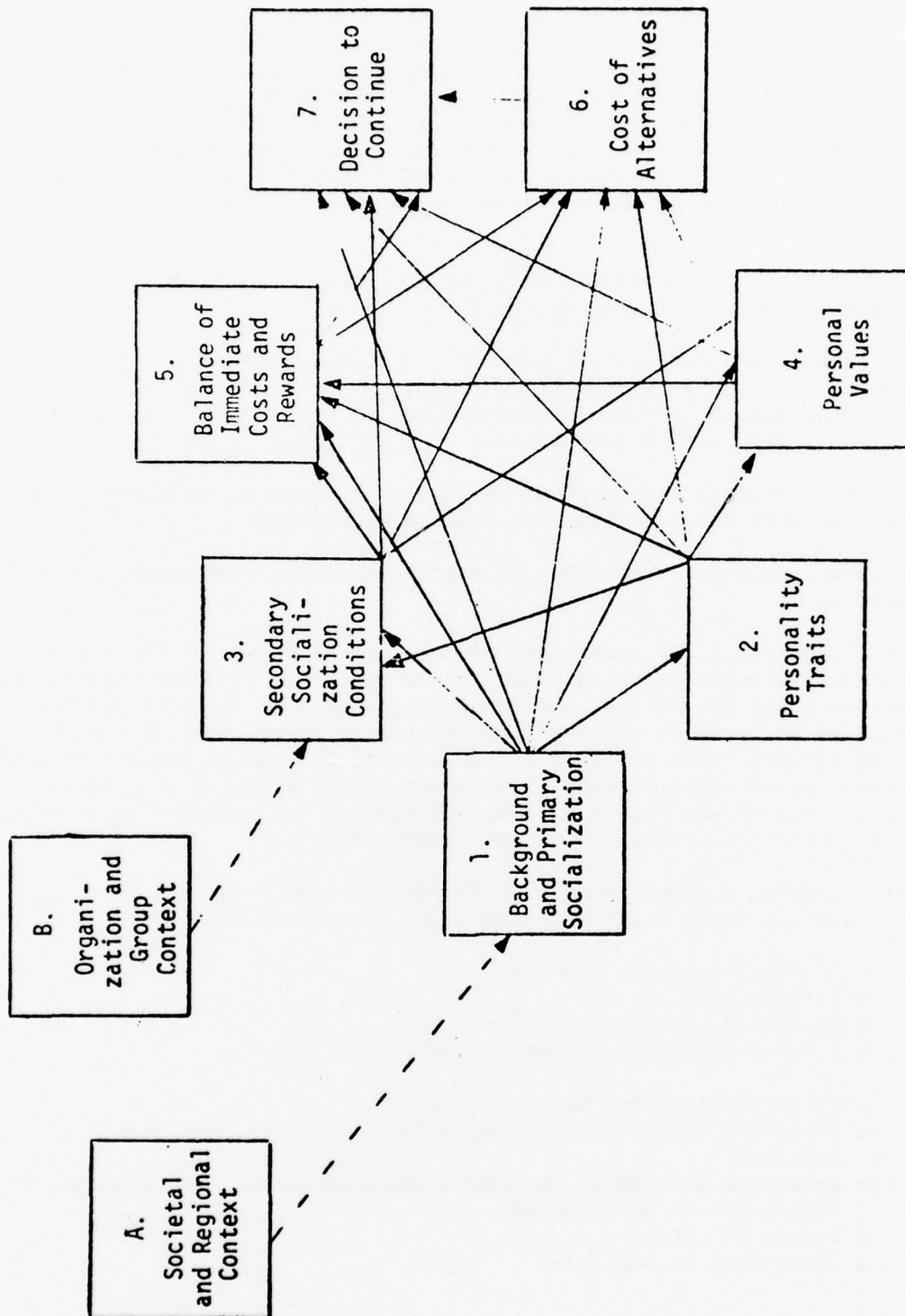   - attachment to ROTC/Army

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Figure 1. General model of role commitment processes

The final aspect of the career commitment process included in the tentative model is the grouping of related predictor variables into predictor clusters and the delineation of the hypothesized structural relationships among the predictor clusters and the criterion variables. The model welds all its components into an assumed causal sequence, and describes which predictor factors become operative at each stage of the career commitment process.

Figure 2 implies that the crucial experimental variables of performance and confirmation/disconfirmation of expectancies feed back into and often change the ROTC cadet's values, interests, aspirations, and attitudes. The experiences also equip him/her with additional, more accurate information about ROTC. A reassessment of the rewards and costs of ROTC is then undertaken, based on expectations for the future in light of the previous experience.

This cycle of Experiences ⟶ Change in values, interests, attitudes ⟶ Additional information about ROTC ⟶ Reassessment of the costs and rewards of ROTC is repeated throughout the ROTC years.

The tentative model was designed to be as exhaustive as possible, in order to ensure that the final model would encompass all crucial determinants of the career commitment process. The model included nine global factors hypothesized to be related to career commitment in general: (a) the U.S. and world political and socioeconomic context; (b) the school and study program context; (c) individual background and primary socialization factors; (d) individual aptitudes; (e) individual life experiences or secondary socialization conditions; (f) individual values, interests, and aspirations; (g) individual attitudes; (h) information acquired by the individual about the career; and (i) career-related experiences. It also included numerous specific variables under each of these global factors, hypothesized to be operative in the ROTC/Army career commitment process in particular.

Data were collected from survey questionnaires filled out by nation-wide samples of 1089 high school seniors, 1633 college students, and 634 ROTC-graduate Army officers in their period of obligated Army service. These data were subjected to successive bivariate and multivariate statistical manipulations--including stepwise discriminant function, stepwise regression, path, and trend analyses.

While the true career commitment process is longitudinal in nature -- occurring over time, involving continuous feedback between the individual and his career environment -- data in the present study were gathered at a single point in time from cross-sectional groups at different stages of the career continuum. The analyses represent an attempt to maximize longitudinal, process-related insights obtainable from the available cross-sectional data.

Two types of multivariate analyses were conducted. The first is represented by discriminant and regression analyses. The discriminant analyses were conducted to isolate those variables that best correlate with participation in the ROTC/Army career path, i.e., those variables that distinguish the JROTC high school seniors, the cadets in Basic ROTC, and the cadets in Advanced ROTC from their non-ROTC peers. The regression analyses were conducted to isolate those variables that best correlate with participants' intention to remain in the ROTC/Army career path. These discriminant function and regression analyses may be viewed as snapshots of the career commitment process. Each picture is taken at a different time, and from a different angle. Together the series of pictures can be used to construct the larger longitudinal picture.

The second type of analyses present another way of constructing the large picture from cross-sectional data. These are path coefficient and trend analyses to portray a moving picture of the career commitment process. These analyses are not restricted in their time perspective to a single point in time, as were the discriminant function and regression analyses. Rather, they look at available data from a longer time perspective. In the path analyses the longer perspective is created from data gathered at a single point in time by making assumptions about the causal precedence among the variables. In the trend analyses the longer perspective is created from data gathered at a single point in time by assuming the comparability of the cross-sectional groups, and using the spread of the groups across the career stage continuum to simulate a longitudinal design.

Figure 2 presented the tentative model of ROTC/Army career commitment which guided questionnaire construction and data analysis. Figure 3 presents the final descriptive model of ROTC/Army career commitment, based on the present study's findings. Figure 3 is not very different from Figure 2, because the tentative model performed quite well in successive evaluations of its ability to account for ROTC/Army participation and commitment.

The findings and conclusions relate to the process of career commitment and specific implications for the Army and ROTC program in recruitment, selection, retention and changes in the ROTC program and Army. These are too lengthy to be presented in the limited time we have. Let me say, however, that both the Army Research Institute and the Army Training and Doctrine Command which is responsible for the ROTC program feels that this has been a very fruitful research effort.

14

A

U.S. AND WORLD POLITICAL AND SOCIOECONOMIC CONTEXT

Extent of U.S. military involve-
ment in foreign countries/% of
population approving of involve-
ment
Unemployment rate in U.S. (diffi-
culty of getting civilian job)

1

BACKGROUND AND PRIMARY SOCIALIZATION VARIABLES

Demographic variables (age, race, sex,
socio-economic status, etc.)
Military experience of family and friends
Family stability and relationships

2

APTITUDES

Intellectual ability
Academic aptitudes

3

SECONDARY SOCIALIZATION CONDITIONS

Participation in high school extracurricular
activities, including JROTC
Parental influence to join ROTC or to pursue
military career
Parent and peer attitudes toward military
Exposure to military families while growing up
Financial need

B1

SCHOOL AND ROTC PROGRAM CONTEXT

Size of school
Location of school
Ownership of school
Political climate of school
Support/opposition to ROTC
program in school
Size of ROTC program
Quality of ROTC program

4

VALUES, INTERESTS, ASPIRATIONS

Personal values (Patriotism, Acceptance
of authority, Recognition, etc.)
Academic and vocational interests
Educational and career aspirations
Career vs. family salience
Industrial vs. occupational commitment

5

ATTITUDES

Attitudes towards ROTC and the Army
Subscription to military ideology
Bureaucratic tendencies
Need for fate control
Anomie
Political Position
Vocational maturity (career
development stage)
Job dimensions of importance

6

INFORMATION ABOUT ROTC/ARMY

7

BALANCE OF COSTS AND REWARDS OF ROTC

Expected rewards of ROTC (financial compen-
sation, job guaranteed after graduation,
development of self-discipline, etc.)
Expected costs of ROTC (time consumed,
contractual obligation to Army, poor
image of Army among peers, etc.)
Alternatives to ROTC

ENTERING FRESHME

FRESHMEN

ENTERING JUNIOR

END SENIOR YEAR

FIGURE 2

A FRAMEWORK FOR VIEWING THE ROTC/ARMY

B2

ARMY BRANCH CONTEXT

Branch assignment
Geographic location of assignment

9

NEW SECONDARY SOCIALIZATION CONDITIONS: COLLEGE AND
ROTC PROGRAM EXPERIENCES

Change in financial situation
Change in attitude of significant others (e.g.,
    girlfriend, peer group)
Performance in college courses
Participation in college extracurricular activities
Performance in ROTC program and courses
ROTC experiences: confirmation/disconfirmation of
    expectancies regarding ROTC courses, instructors,
    fellow cadets, time consumed by ROTC, skills
    learned, etc.

14

NEW SECONDARY SOCIALIZATION CONDITIONS: ARMY
EXPERIENCES

Attitude of significant others (e.g., spouse)
Performance in Army
Satisfaction with Army job
Army experiences: confirmation/disconfirmation
    of expectancies regarding quality of Basic
    course, Basic Course instructors, nature of
    Army job, perceived importance of job to
    Army, present supervisors and collegues,
    family life afforded by Army job, etc.

15

BALANCE OF COSTS AND REWARDS OF ARMY JOB

8

DECISION
TO JOIN
BASIC ROTC
PROGRAM[a]

10

DECISION
TO CONTINUE
IN ROTC[a]

12

DECISION
TO JOIN
ADVANCED ROTC
PROGRAM[a,b]

13

DECISION
TO JOIN REGULAR
ARMY OR ACTIVE
DUTY RESERVE[c]

16

DECISION
TO VOLUNTARILY
EXTEND ARMY
SERVICE

ENTERING FRESHMEN

FRESHMEN, SOPHOMORES

11

BALANCE OF COSTS AND REWARDS OF
ARMY CAREER

Expected job satisfaction in the Army
Expected rewards of Army career
Expected costs of Army career
Alternatives to Army career

ING JUNIORS,

IIOR YEAR

[a]The decision to apply for, and (if offered) accept,
an ROTC scholarship may also be made at this
point. Acceptance of a scholarship obligates the
person to a 4-year tour of duty in the Army.

[b]Joining the Advanced ROTC program without a
scholarship obligates the person to a 2-year tour
of duty in the Army.

[c]Joining the Regular Army obligates the person to
a 3-year tour of duty in the Army.

RE 2

OTC/ARMY CAREER COMMITMENT PROCESS

15

A *

U.S. AND WORLD POLITICAL AND SOCIOECONOMIC CONTEXT

U.S. involvement in a war people approve of
High civilian unemployment rate

1

BACKGROUND AND PRIMARY SOCIALIZATION VARIABLES

Resident of rural or urban area
Father in military
Brothers in ROTC
Contact with military families while growing up
Frequent moving while growing up

2

APTITUDES

Relatively low high school and college grades
Relatively high physical education abilities

3

SECONDARY SOCIALIZATION CONDITIONS

Attendance at high school with JROTC
Participation in JROTC
Parental encouragement to join ROTC or pursue military career
Favorable parental attitudes toward military
Favorable peer attitudes toward military
Current contact with military families

B1

SCHOOL AND ROTC PROGRAM CONTEXT

Small ROTC program
School in rural or urban area
Conservative community*
Support for ROTC program in in school and community*
Competent ROTC instructors*
ROTC instructors involved in other school activities*

4

VALUES, INTERESTS, ASPIRATIONS

Relatively high value on patriotism, leadership, conformity, acceptance of authority, recognition
Relatively low value on aestheticism, independence, religiousness, benevolence, equalitarianism
Interest in pursuing military career
High educational aspirations
High salary aspirations (females only)
Relatively greater career (as opposed to family) salience
Relatively greater organizational (as opposed to occupational) salience

5

ATTITUDES

Favorable attitudes towards ROTC
Favorable attitudes towards the Army
High subscription to military ideology
Low need for fate control
Low anomy
High vocational maturity
Conservative politics
Relatively low importance attached to the following job dimensions: salary, utilization of skills, stability of home life, personal freedom, geographic desirability
Relatively high importance attached to the following job dimensions: responsibility, more schooling, chance to be a leader, adventure, feedback on performance, advancement opportunity

6

INFORMATION ABOUT ROTC/ARMY

Relatively greater, more accurate information about ROTC/Army

7

BALANCE OF COSTS AND REWARDS OF ROTC

Perception that the rewards of ROTC (financial benefits, training, development of self discipline, opportunity for career exploration) outweigh its costs (time consumed, obligations incurred)

NEW SEC

Confirm
espe
lead
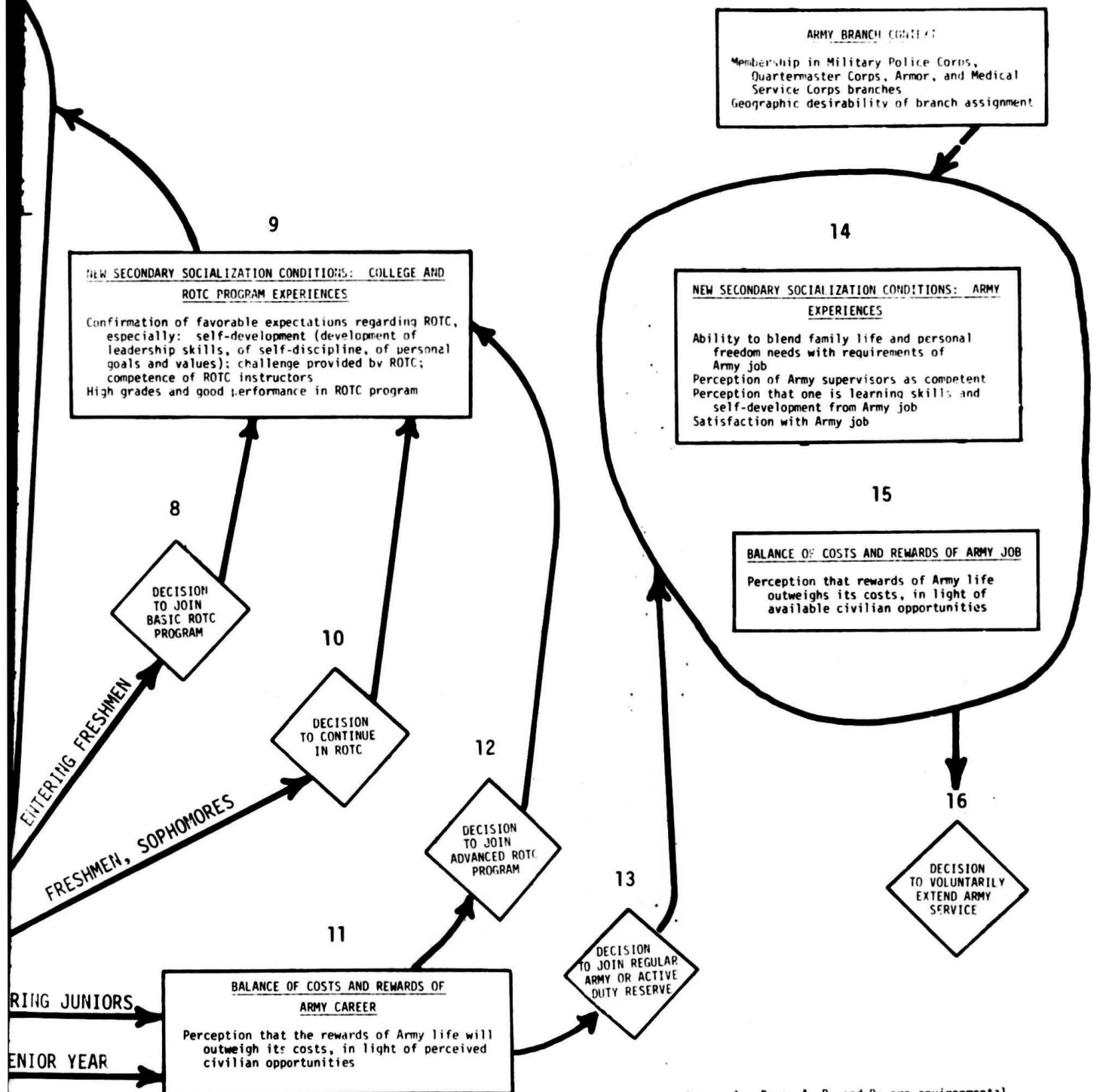goal
comp
High gr

ENTERING FRESHMEN

FRESHMEN,

ENTERING JUNIORS

END SENIOR YEAR

FIGURE 3

A FINAL DESCRIPTIVE MODEL OF THE ROTC/ARMY C

17

B2

ARMY BRANCH CONTEXT

Membership in Military Police Corps,
Quartermaster Corps, Armor, and Medical
Service Corps branches
Geographic desirability of branch assignment

9

NEW SECONDARY SOCIALIZATION CONDITIONS: COLLEGE AND
ROTC PROGRAM EXPERIENCES

Confirmation of favorable expectations regarding ROTC,
especially: self-development (development of
leadership skills, of self-discipline, of personal
goals and values); challenge provided by ROTC;
competence of ROTC instructors
High grades and good performance in ROTC program

14

NEW SECONDARY SOCIALIZATION CONDITIONS: ARMY
EXPERIENCES

Ability to blend family life and personal
freedom needs with requirements of
Army job
Perception of Army supervisors as competent
Perception that one is learning skills and
self-development from Army job
Satisfaction with Army job

15

BALANCE OF COSTS AND REWARDS OF ARMY JOB

Perception that rewards of Army life
outweighs its costs, in light of
available civilian opportunities

8

DECISION
TO JOIN
BASIC ROTC
PROGRAM

10

DECISION
TO CONTINUE
IN ROTC

12

DECISION
TO JOIN
ADVANCED ROTC
PROGRAM

ENTERING FRESHMEN

FRESHMEN, SOPHOMORES

13

DECISION
TO JOIN REGULAR
ARMY OR ACTIVE
DUTY RESERVE

16

DECISION
TO VOLUNTARILY
EXTEND ARMY
SERVICE

11

BALANCE OF COSTS AND REWARDS OF
ARMY CAREER

Perception that the rewards of Army life will
outweigh its costs, in light of perceived
civilian opportunities

RING JUNIORS

ENIOR YEAR

Note: 1. Boxes A, B$_1$ and B$_2$ are environmental
determinants of commitment and for the most part were
not tested in the present study (* denotes variables
not tested).

2. Boxes 1, 2, and 3 are "remote" influences
on commitment and were found to be most salient at the
Basic ROTC career stage. Boxes 4, 5, 6, and 7 are "inter-
mediate" influences on commitment and were found to be most
salient at the Advanced ROTC career stage. Boxes 9 and 14
are "proximate," experiential variables and were found to be
most salient at the post-college, early Army service career
stage.

GURE 3

ROTC/ARMY CAREER COMMITMENT PROCESS

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Remarks of Chairman

ARI career development research has focused on junior officers --
lieutenants and captains. It is important to look at where junior of-
ficers come from; that is, the route to commissioning. Of the three
sources of the junior officers -- OCS (Officer Candidates School),
West Point (the service academy) or ROTC (Reserve Officers Training
Corps)--the largest is ROTC, which supplies around 75% of new officers.
This lends importance to the effort Dr. Hicks just described--the career
commitment model at the ROTC level.

Mr. John Weldon will continue on the ROTC process.

ROTC CAREER ORIENTATION PROCESS

John I. Weldon, Jr.

U.S. Army Training and Doctrine Command

My purpose is to provide you an overview of the Army ROTC Cadet
Evaluation System and the instruments that make it up and their use.
It is my understanding that, in the decision making process, we spend
about 50 percent of our effort collecting information and analyzing data,
about 40 percent in planning, developing alternative strategies, and sort-
ing things out, and about 10 percent in implementing selected strategy.

Insofar as the Army ROTC Cadet Evaluation System is concerned, we
at the Training and Doctrine Command are involved in all phases, pri-
marily the implementation phase in that we are the users of the psychologi-
cal instruments and related information provided by the Army Research
Institute.

In general, the Cadet Evaluation System produces data for use in
cadet development, counseling, selection, and assignment at 287 host
institutions with a cadet enrollment over 45,000. The system provides
feedback to the cadet in the development of his military knowledge,
skills, and potential. This information is passed on to the cadet
through counseling. In essence, the professor of military science is
provided a basis for helping the cadets in their development and for
making critical decisions regarding them. Also, ROTC management uses the
evaluation data, together with other applicable information, in select-
ing cadets for scholarship awards, Regular Army commissions, and active
duty. The data is also used each year in assigning some 5,000 cadets to
Army branches/specialties in light of their preference and background.

Over the past several years, we have been in the process of instal-
ling a restructured cadet evaluation system, which should be completed
by the end of school year 77-78. Research support is being provided by
the Army Research Institute. An outline of that system is contained in
attachment 1.

In summary, our cadet assessment system is designed to give feedback
to the cadet to help him develop his potential and to give feedback to
management as bases for better decisions.

Attachment 1

ARMY SENIOR ROTC CADET EVALUATION SYSTEM

FRESHMAN YEAR (Military Science (MS) I)

   --College Entrance Examination Board Scholastic Aptitude Test (SAT),

   --American College Test (ACT) or

   --*ROTC Qualifying (RQ) Examination

   --Plus locally prepared achievement tests

NOTE--Above tests measure academic potential; results are used by the
      Military Science Department to identify cadets who have a verbal
      and/or mathematics deficiency and to encourage them to participate
      in appropriate remedial courses offered by the host institution.

*At host institutions not requiring the SAT/ACT for admission, this test
 is administered to ROTC cadets for the purpose indicated.

SOPHOMORE YEAR (Military Science (MS) II)

   --Cadet Evaluation Battery (CEB)
     (Provides estimates of cadets' leadership and career potential;
     results are used in counseling of cadets by members of the Military
     Science Department.)
   --Plus locally prepared achievement test

NOTE--The CEB scores are used, together with other information, in select-
      ing cadets for admission into the ROTC Advanced Course (Junior/
      Senior years).

BETWEEN SOPHOMORE AND JUNIOR YEARS (ROTC Basic Camp Student Evaluations)

College juniors who do not complete the on-campus ROTC Basic Course (MS I
and MS II) and desire to enroll in the on-campus ROTC Advanced Course
(MS III and MS IV) may attend a 6-week ROTC Basic Camp and qualify for
admission into the Advanced Course. At the Basic Camp, students receive
an evaluation of their military knowledge, skills, and potential, similar
to that made on cadets during the on-campus Basic Course (MS I and MS II).
Basic Camp evaluations include--

   Physical Fitness Test
   Score Orienteering
   Graded Military Skills Training
   Job Performance Rating
   Peer Rating

JUNIOR YEAR (Military Science (MS) III)

--Flight Aptitude Selection Tests (FAST)
(Used to screen ROTC Flight Instruction Program applicants in that
they identify one's aptitude for training as an officer aviator.)
--ROTC Land Navigation Diagnostic Test
(Designed to preclude poor performance by cadets in the practice
phase of land navigation conducted at the Advanced Camp. Cadets
identified by this test as not having required proficiency are
given remedial instruction prior to their attendance at camp.)
--Plus locally developed achievement tests

NOTE--A new instrument is being developed for administration during the
latter part of the cadet's junior year for use in the branch/primary
specialty assignment process. It will be known as the Differential
Officer Assessment Battery. It is now being analyzed and drafted
for operational use in the near future.

BETWEEN JUNIOR AND SENIOR YEARS (ROTC Advanced Camp Cadet Evaluation)

The ROTC Advanced Camp program is a training laboratory for leadership
development. It is the practical application phase of the cadets' mili-
tary education designed to broaden his foundation of military experience
and to challenge the cadet's mental and physical abilities while develop-
ing his managerial and leadership capabilities. Advanced Camp evaluations
include:

Physical Fitness Test
Freestyle Orienteering
Military Stakes
Job Performance Rating
Peer Rating

(Results are used in screening cadets for Regular Army appointment,
branch/specialty assignments and active duty/active duty for training.)

SENIOR YEAR (Military Science (MS) IV)

--*ROTC Evaluation (ROE-2)
(Designed for use in screening cadets for Regular Army appointment,
branch/specialty assignments, and active duty/active duty for train-
ing. Information is provided by a member of the Military Science
Department who has had the cadet in one of his military science
courses.)
--Army Adaptation Inventory
(Also designed to be used in screening cadets as indicated for the
ROTC Evaluation. The inventory measures drive and military orien-
tation.)

--Plus locally developed achievement tests

*Under revision--a new on-campus behavior scale has been constructed and
preparations are underway for experimental administration this spring.

Remarks of Chairman

Now we will turn to the counselee side of the career progression system. With the size of the Army, its geographical distribution, and the scope of information to be delivered, it was reasonable to consider a computer as part of the delivery system. However, where other means of delivery prove to be more cost effective, these will be evaluated. We carefully considered the state of the art in computer technology and the successful experience of other career guidance systems in using computers. We have developed a computer software system, possessing interactive dialogue and distributed file query capability. For our research we have acquired a teleprocessing network, tied to a UNIVAC 1108 computer at Edgewood, Maryland, CRT terminals with keyboards, and printers. What is important is how we will use this hardware and software. Professor Myers and his team have made important contributions. Dr. Hoffer, a member of this team, will be the next speaker, followed by Dr. Myers as discussant.

CONCEPT OF CAREER STRATEGIES

Gilbert L. Hoffer

Psychological Corporation

I think that by now you have a sense of the extensive detail behind
what is being presented. I would like to share with you in capsule form
the rationale for what those of us at Teachers College are doing. We
are primarily knowledgeable in the career planning area, not the Army.
However, two of us have had some years of experience as Air Force officers.

The Chairman has mentioned that there are two sides to career research
development. One is the Army's standpoint and the other is that of the
individual. Let us consider for the moment what the Army must do to
accomplish its own objectives:

Know Its Objectives - Here we are thinking of national needs and values -
that is, what must the Army be able to achieve to provide for national
security.

Know Its Own Resources - The Army must know the capabilities and limi-
tations of the resources under its control. For our part we are princi-
pally thinking of officer personnel resources.

Know Its Environment - In the larger national and international context
or environment, there are potential additional resources as well as limi-
tations and counter-forces, etc.

Plan Strategies For Developing And Applying Its Resources To Achieve
Its Objectives - Strategists use the knowledge of objectives, resources,
and the environment to design plans for applying the available resources
within realistic environmental constraints to make possible the accom-
plishment of the objectives.

Monitor Its On-going Status - If the Army is to remain viable over
time there has to be a mechanism for on-going monitoring: "Are we achiev-
ing our objectives? Is the environment shifting?" and so forth.

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One of the Army's principal resources is its officer personnel, which over the years have been examined, trained, used, tested and replaced almost like they were pieces of equipment. I think there is a gradually increasing awareness that these personnel resources are not just passive, though admittedly complex and creatively resourceful, cogs in the system. The Army's concern is demonstrated by the mandate for our research effort. It is believed that if the officers are actively informed, given sufficient resources and rewarded for taking more career initiatives, both the Army and the individual will benefit.

Our team at Teachers College was asked to develop a program to assist the officer in taking an active role in his or her own career progression. We were to write dialogue modules focused on long-term career planning that would be used in conjunction with the experimental computer-aided career progression system. Our challenge was to develop modules that were responsive to realistic career development issues yet not so tied to specific current detail as to be outmoded as soon as some change is made in the system by military personnel or by the Congress.

As we thought more about it, we noticed that in order for an officer to manage his or her own future career he or she would have to have much the same kind of strategic knowledge and capability that the Army needs. In fact, I think it is both possible and helpful to think about career plans much as an organization might address its own organizational resource development plan. That is, to manage his own Army career the officer must:

Know The Objectives - To manage their own careers, officers need to know their own personal goals as determined by their values and needs.

Know The Resources - They need to know the skills and abilities they currently possess or are developing.

Know The Career Environment - They need to know the Army officer career structure, what it is and how it works.

Plan Strategies For Developing And Applying Given Resources To Achieve Personal Objectives - They need to make realistic plans to develop or apply their skills and abilities toward achieving their goals within the constraints of the Army system. For our purposes we are restricting ourselves to the more narrowly defined context of the Army officer career structure in contrast with the SIGI and Discover systems which address the broad world of work.

Monitor The Career Progress - It is necessary for officers to monitor their career progress in order to assure flexible adaptation to, and continued appropriate impact upon, the career environment in accordance with their personal values and needs.

There are a number of underlying concepts that aid an individual in developing career strategies. We have identified five which have provided background to the development of our system. We think the underlying concepts for developing career strategies can be captured in some of these notions:

Choice Is Inevitable - You simply cannot avoid choice points. Sometimes one's responses are passive, sometimes active. Significant choice points always occur along the path of one's career regardless of the degree to which an individual actively influences the outcome at that point.

Choice Is The Opportunity For Implementing Values Within The Constraints Of Capacities - The pursuit of a satisfying career which is consistent with an individual's values must necessarily be confined in important ways by realities in the environment and one's own abilities.

Contingencies And Discontinuities Need To Be Assessed - One needs to be realistic about the factors that might influence the best made plans and allow for alternatives.

Clarity Must Be Sought With The Full Appreciation Of Tentativeness - Despite the reality of the tentativeness of life, and careers in particular, clarity still should be sought to the extent possible. In order to have an active, well-designed, known career plan, one has to know, or seek essential information in, the five major strategic planning areas I mentioned before. At the same time one must remain fully aware that it is not a static situation. Clarity yes, permanence no.

Life's Stages Significantly Alter One's Values, Capacities And Commitments Over Time - Failure to take these shifts into account often results in the derailment of long range plans.

If officers are to consciously influence their own careers in ways that are consistent with these concepts, a number of complex skills need to be developed and used:

Ability To Clarify And Assess Current And Probable Future Capacities, Skills and Value Hierarchies - We are addressing major skill categories to avoid immediate obsolence in the modules. We assist people in beginning to develop this ability or reinforce them for already having it.

Ability To Identify Significant Choice Points, To Assess The Relative Impact Of Determinates And To Evaluate Their Amenability To Influence - Here the ability to mesh personal factors such as knowing one's self with the Army system's resource needs is realistically concerned with discontinuities and contingencies.

<u>Ability To Engage In Relevant Self/Career Monitoring Techniques</u> - This requires both the ability to recognize appropriate techniques as well as the discipline to engage in them.

These then, are the skills which need to be encouraged or developed if they are not already in place.

In addition, we recognize that in order for an officer to take charge of his or her own career, it is really necessary that he or she believe that it is possible to have a significant impact on that career. Practical evidence of this possibility is provided the officer in the modules. Too many people take a passive stand, feeling, "It is a big system out there," and they get pushed around by it. There are places and ways where they can make an impact. Our point is not only to make this claim but to indicate along the way where leverage might be applied.

We at Teachers College are quite excited about the possibility of working on this project with ARI. It provides a unique opportunity for designing a personal career development package in the context of an extensive on-going career environment data base (which has a degree of specificity that is not readily available in other areas) along with extensive and sophisticated computer capabilities.

As mentioned by the Chairman and the others, much of the research data generated regarding Army careers has not been intended for use by individual officers, but has been derived to help the Army manage its officer personnel resources. That has historically been the larger share of the emphasis. However, the Army is redressing that imbalance. In this project we see an opportunity for taking that organization-oriented data base and using it in ways that are most helpful to the individuals who provided the data. Oftentimes data are collected or stored in a fashion that is efficient for managing resource groups, but not in ways that are useful to individuals. We are reorganizing existing data to make it more beneficial to the individual officer. For example, it is one thing for the Army to know how many from one academic background and how many from another make up the population in a given military specialty. It is quite another thing for an individual to know what his or her relative chances are of being assigned in that area. Let me illustrate. To know that 10% of a specialty have a given background does not in itself communicate the probability of getting into that specialty if you have that particular background. Calculations using the raw data have to be made differently for each of these questions. The data are in the system, but until now they have not been usefully available for the individual. To achieve our objective we had to study three major components: career development theory, the Army officer career structure, and the computer capabilities that we would have available to us.

We came away from our assessment of the situation believing that although an officer cannot have complete power over what happens in his/her future (for there are some very real and forceful career constraints in the Army) neither will an officer's future be decided completely without his or her participation. Officers can participate in the structuring of their own careers. If officers know themselves, know the system and know what they want, they can have a significant impact on their future.

We then designed a long range career strategies program which consisted of five major units. These units needed to be closely enough tied to real Army data yet general enough so as not to become obsolete with the next change in policy by the military personnel center or findings from ARI research. The components of our program are:

Introduction - This module explains the rationale and the components of the system to which the officer will be exposed during his or her time on the terminal.

An Overview Of The Army Officer Career Structure - Even though two of us had been officers, we were initially overwhelmed by all the career data and the myriad sources for obtaining it. It seemed that one almost had to be an Army career structure specialist to do adequate planning. We had to find ways to integrate data from a variety of different sources and make it usefully comprehensible by the officer.

Self-Assessment Of Skills And Values - The focus here is on the individual in a way that is relatively independent from Army career structure information. A lot of materials have been developed in the area of values clarification and skills assessment. We continue to draw on those resources.

Career Strategies - Here we attempt to integrate the Army officer career structure, self-assessment information, and add life stage considerations. An officer can systematically review a number of possible careers along with those factors that might influence their development.

Career Monitoring Techniques - Techniques and exercises are presented and encouraged which can assist the officers in keeping track of where they are going.

Although ARI was anxious to proceed with the entire package, as an applied research facility, they live in the real world of having to demonstrate periodically the value of their research efforts. Therefore, because the entire program would clearly involve considerable time and resources, we selected face valid and economical elements of the program to be initially developed and field tested in order to demonstrate its essential utility. Because a current thrust in the Army officer career structure is the appropriate selection of an officer's alternate specialty, we were asked to develop modules relating to that specific concern.

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At this point we have completely scripted the following three units and are preparing them for our initial field test:

Introduction

Army Officer Career Structure Overview

Selecting An Alternate Specialty - This module was not among our original five. Selecting an alternate specialty provided us an opportunity to highlight in miniature some of the elements that would be part of the major units on self-assessment, strategy, and monitoring. At this point we are going to put these three modules on the system and modify them as indicated by our field study. At the same time we will be fleshing out the design of the other three major modules that remain in the overall program: Self-Assessment, Strategy, and Career Monitoring Techniques.

We have not had the time today to present the particulars of each module, but have rather attempted to share with you how we went about the process of identifying and applying career strategy concepts in the officer career system.

DISCUSSION OF PANEL PRESENTATIONS
ON ARMY OFFICER CAREER DEVELOPMENT

Roger A. Myers

Teachers College, Columbia University

It is a pleasure to hear Dr. Hoffer's presentation. I now have a
much better understanding of what I've been doing for the last six months.
I am impressed as you probably are with the enormous wealth of data that
the Army Research Institute has about the matter of careers. They have
a unique ability, perhaps unique in all history, to understand what in
fact goes on within the career structure with which they work, to know
about supply and demand, performance evaluation, and predictors of suc-
cess in a way that almost no other system can. I'm depressed because
after several years of working with these folks off and on, I have still
not convinced them that there is no essential difference for career plan-
ning purposes between the Army and any other kind of career structure.

It seems to me that the elements of distribution--getting the right
bodies in the right places in order to get a job done--and of guidance--
helping a person fantasize productively about his future--when one is
doing career planning.

It is a fascinating problem from an intellectual point of view to
deal with career planning in an opportunity system which is completely
knowable. I know of no other opportunity to do that. I see the Army
Officer Career Structure as a microcosm from which understanding can be
generated toward career development in general.

You are aware of the vast capacity for research that this ARI group
represents. They have some fascinating work going on in practically
every cubicle in a very large building. They do things that they call
policy capture, which literally boggles the mind. By studying the career
behavior and eventualities of thousands of officers they can tell the
Army what its policy has been. They have, as you can see in Dr. Weldon's
and Dr. Hick's presentations, capacity to generate theoretically meaningful
models which go far beyond ROTC. Terms like career commitment are of
course very much a part of the lexicon of all of us who work or play in

this area. I am also impressed with the enormous capacity for the guidance enterprise itself. What this group of researchers, with the mountains of data on which they sit, can contribute to the guidance enterprise is at a very high level indeed. In the first place they can tell an officer within the system a great deal about himself, his past, his present, and the probabilities of his future. They can also describe to the outside world what it is like to be an officer in the Army in psychologically meaningful ways that will, I think, make an important difference in vocational psychology and career development.

Let me say just one more thing about my particular interest. I mentioned fantasy before; for me, career development, especially long-term career planning, has a great deal to do with fantasy. More formally it is a part of what is called exploratory behavior and it seems that what the Army Research Institute makes available for exploratory behavior is simply incomparable. Our present quest is for a simple, easy to understand delivery system that makes it possible for an officer to sit and engage in guided fantasy about himself, the opportunity system, and the probabilities of his relationship to that opportunity system in the way that continues to excite me.